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Patent
IBM Docket No. FIS919980039US3

REMARKS

Claims 76 to 88 and 94 to 113 are presented for examination in this Application. Claims 76, 78, 80, 88, 95, 99, and 113 have been amended for which there is support in the specification, claims and drawings as originally filed.

Reconsideration of the Examiner's decisions and reexamination of this application are respectfully requested.

Drawing corrections:

In the Preliminary Amendment submitted at the time of filing of this patent application, the Applicants submitted some drawing corrections for the Examiner's approval. The Examiner does not appear to have addressed those drawing corrections in the Office Action. It is respectfully requested that the Examiner review and approve those drawing corrections.

Examiner Interview:

Applicants acknowledge the Examiner's courtesy in granting an interview with the undersigned on March 2, 2005. During the interview, the Asaki et al. U.S. Patent 6,051,118 reference was discussed. Applicants proposed an amendment in which the selectively adjustable protrusion just contacts the substrate and the Examiner indicated such an amendment would overcome the Asaki et al. reference.

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The §102 rejections:

Claims 76, 79 to 82, 85, 87, 94 to 101 and 103 to 113 have been rejected by the Examiner under 35 USC §102(e) as being anticipated by Asaki et al. U.S. Patent 6,051,118 (hereafter "Asaki").

Claims 76 and 113 have been amended to clarify the invention. That is, claim 76 now positively recites selectively adjusting the protrusion until the substrate is just contacted by the protrusion while claim 113 positively recites selectively adjusting the protrusion towards the substrate until the substrate is just contacted by the protrusion and then selectively adjusting the protrusion away from the substrate a predetermined distance from the substrate. More will be said regarding these claims as the rejections are specifically discussed.

The Examiner has cited the Asaki reference to anticipate Applicants' claims. In the Examiner's remarks, the Examiner states that "Asaki discloses in figures 2 and 3 an apparatus and a corresponding method of forming a land grid assembly module...". This is erroneous as Asaki clearly relates to connecting two electrodes together (Asaki title: COMPOUND ELECTRODE FOR ELECTROLYSIS). There is no disclosure whatsoever in Asaki relating to land grid assembly modules and, in fact, is missing disclosure pertaining to certain elements of Applicants' claims 76 and 113 including "cap", "sealing legs" and "sealed module". Moreover, Asaki is clearly irrelevant to the problem that Applicants are trying to solve. That is, if a person skilled in the art were looking to solve a problem relating to land grid assembly modules, that person skilled in the art would look to the land grid assembly module art or, at the very least, art relating to electronic packages. That person skilled in the art would not look to art relating to the assembly of electrodes. Accordingly, it is submitted that Asaki is nonanalogous art.

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Even if Asaki were considered to be analogous art, claims 76 and 113 are clearly distinguishable from Asaki. In claim 76, Applicants recite the step of "selectively adjusting a position of said at least one selectively adjustable protrusion in relation to said substrate until said substrate is just contacted by said at least one selectively adjustable protrusion wherein during a load condition on said substrate, said at least one selectively adjustable protrusion suppresses an amount of flexing of said substrate". Asaki shows its selectively adjustable protrusion - bolt 6 - fully threaded into substrate 1. Therefore, Asaki cannot show the foregoing step wherein Applicants' selectively adjustable protrusion just contacts the substrate. Accordingly, claim 76 must be considered to be allowable over Asaki.

Claim 113 recites the steps of "selectively adjusting a position of said at least one selectively adjustable protrusion in a direction toward said substrate until said substrate is just contacted by said at least one protrusion, and then selectively adjusting a position of said at least one selectively adjustable protrusion in a direction opposite to said substrate by a predetermined distance from said substrate, wherein during a load condition on said substrate, said at least one selectively adjustable protrusion suppresses an amount of flexing of said substrate". Again, Asaki shows its selectively adjustable protrusion - bolt 6 - fully threaded into substrate 1.

Therefore, Asaki cannot show the foregoing steps wherein Applicants' selectively adjustable protrusion just contacts the substrate and then is moved in a direction opposite to the substrate by a predetermined distance. Accordingly, claim 113 must be considered to be allowable over Asaki.

Inasmuch as claims 79 to 82, 85, 87, 94 to 101 and 103 to 112 depend, directly or indirectly, from claims 76 or 113, and since claims 76 and 113 are believed to be allowable, then claims 79 to 82, 85, 87, 94 to 101 and 103 to 112 should be allowable as well.

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In addition, claims 82, 95, 103, 107 and 108 at least are believed to be independently patentable. Claim 82 requires "said at least one protrusion is gimbaled or otherwise includes a moveable contact surface". The Examiner does not appear to address this limitation as the Examiner indicates that "said at least one protrusion (4) is an opposite contact surface". However, the Examiner's recitation is not what Applicants are claiming and, further, Asaki's protrusion 4 is fixed while Applicants' protrusion is selectively adjustable. Therefore, claim 82 is believed to be allowable over Asaki.

Claim 95 recites "rotating said at least one protrusion...to adjust a distance of a bottom of said protrusion from a top surface of said substrate". The Examiner states that the protrusion is rotated to "adjust a distance of a bottom of said protrusion (4) from a top surface of said substrate (1)". Protrusion 4 of Asaki is fixed and cannot be rotated. Therefore, Asaki cannot anticipate Applicants' claim 95.

Claim 103 recites a contact plate "for spreading a reaction load between said at least one protrusion and said substrate". The Examiner cites "contact plate (8) for spreading a reaction load between at least one protrusion (4) and said substrate (1)". Asaki's protrusion 4 is fixed and not selectively adjustable according to Applicants' claims 76/103. Accordingly, the fact that protrusion 4 of Asaki contacts contact plate 8 is irrelevant since this is not what Applicants are claiming. Therefore, claim 103 must be allowable.

Claim 107 claims the "contact plate is pre-attached to a tip of said at least one protrusion". The Examiner indicates that contact plate 8 is pre-attached to a tip of protrusion 4. Again, protrusion 4 is not selectively adjustable. Bolt 6 of Asaki is selectively adjustable but there is no contact plate pre-attached to it. Accordingly, claim 107 must be considered to be allowable.

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Claim 108 recites that the “contact plate is gimbaled or otherwise includes a movable contact surface”. The Examiner states that “said contact plate (8) is an opposite contact surface”. This reasoning has nothing to do with the fact that the “contact plate is gimbaled or otherwise includes a movable contact surface” as claimed by Applicants. Accordingly, claim 108 is believed to be allowable.

The §103 rejections:

I. Claim 77 has been rejected by the Examiner under 35 USC §103(a) as being unpatentable over Asaki in view of Atwood et al. U.S. Patent Application Publication US 2001/0026957 (hereafter “Atwood”).

Inasmuch as claim 77 depends from claim 76, and since claim 76 is believed to be allowable, then claim 77 should be allowable as well.

II. Claims 78, 83, 84, 86, 88 and 102 have been rejected by the Examiner under 35 USC §103(a) as being unpatentable over Asaki.

Inasmuch as claims 78, 83, 84, 86, 88 and 102 depend, directly or indirectly, from claims 76 or 113, and since claims 76 and 113 are believed to be allowable, then claims 78, 83, 84, 86, 88 and 102 should be allowable as well.

In addition, claims 83 and 84 at least are believed to be independently patentable. Claim 83 recites “capping the at least one protrusion with an elastomer layer”. The Examiner indicates that this is merely the selection of a known material and thus is not patentable according to the teachings of In re Leshin. It is submitted that the Examiner’s reliance on In re Leshin is

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misplaced. In re Leshin applies to a situation where an applicant selects a known material for the applicant's use where a prior art similar use already uses the material. To carry the Examiner's rationale to its extreme, no use of a known material could ever be patentable; this is a result not intended by In re Leshin. Here, no prior art exists showing the use of a protrusion with an elastomer layer. Since the Examiner has not cited any art teaching a protrusion with an elastomer layer, claim 83 must be considered to be allowable.

Claim 84 recites mounting the elastomer in an area of the substrate corresponding to the protrusion. Again, the prior art does not disclose such a use of an elastomer and In re Leshin does not apply. Accordingly, claim 84 must be considered to be allowable.

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Summary:

In view of all of the preceding remarks, it is submitted that all of claims 76 to 88 and 94 to 113 are in condition for allowance. If the Examiner finds this application deficient in any respect, the Examiner is invited to telephone the undersigned at the Examiner's earliest convenience to resolve such deficiency.

Respectfully Submitted,
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